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1. The first part of the paper is devoted to the study of the properties of the function  $f(x)$  defined by the equation  $f(x) = \sum_{n=0}^{\infty} a_n x^n$ , where  $a_n$  are the coefficients of the power series. It is shown that the function  $f(x)$  is analytic in the disk  $|x| < 1$  and that it satisfies the functional equation  $f(x) = x f(x^2) + 1$ .